

Worksheet – Perfect Square Trinomials – Version 2

Directions: Please fully factor the following expressions.

1. $x^2 + 18x + 81$

$$(x+9)(x+9)$$

2. $y^2 - 10y + 25$

$$(y-5)(y-5)$$

3. $25x^2 + 10x + 1$

$$(5x+1)(5x+1)$$

4. $36x^2 + 84x + 49$

$$(6x+7)(6x+7)$$

5. $x^2 + 6xk + 9k^2$

$$(x+3k)(x+3k)$$

6. $x^8 + 20x^4 + 100$

$$(x^4+10)(x^4+10)$$

7. $x^2y^8 - 12xy^4 + 36$

$$(xy^4-6)(xy^4-6)$$

8. $4x^2 + 24x + 36$

$$4(x^2+6x+9)$$
$$4(x+3)(x+3)$$

9. $9a^2 + 18ab + 9b^2$

$$9(a^2+2ab+b^2)$$
$$9(a+b)(a+b)$$

10. $x^2 - 24x + 144$

$$(x-12)(x-12)$$